

WE CLAIM:

1. A cooling apparatus for wire rod comprising:

a conveyor defining a path for overlapping rings of wire rod in a conveying plane;

respective guides directing separate cooling air streams onto said overlapping rings of wire over a predetermined portion of a length of said path at respective laterally outer regions and at least one laterally inner region of said path between said outer regions; and

respective independently controllable blowers connected with said guides for generating said air streams and including at least one of said blowers for producing at least one of the air streams at said outer regions and at least another of said blowers for producing the air stream at said inner region.

2. The cooling apparatus defined in claim 1 wherein respective outer blowers generate the air streams for said outer regions and an inner blower generates the air stream for said inner region, the outer blowers being of the same type and having substantially the same volumetric flow capacities and power, said inner blower having a greater or lesser power than that of said outer blowers.

1 3. The cooling apparatus defined in claim 1 wherein
2 said blowers have respective controlled-speed electric motors.

1 4. The cooling apparatus defined in claim 3 wherein
2 said motors are frequency-control motors connected to at least
3 one frequency controller.

1 5. The cooling apparatus defined in claim 3 wherein
2 each of said motors has a respective speed controller individual
3 thereto.

1 6. The cooling apparatus defined in claim 3 wherein
2 the motor of said inner blower has a respective speed controller
3 individual thereto and the motors of said outer blowers have a
4 common speed controller.

1 7. The cooling apparatus defined in claim 2 said inner
2 blower has an electric motor controllable individually for
3 regulating a speed thereof and said outer blowers have respective
4 drive motors without speed controllers.

1 8. The cooling apparatus defined in claim 2 wherein
2 the outer blowers and a respective inner blower are mounted
3 together in a respective module of said conveyor, said conveyor
4 having a succession of said modules disposed along said path.

1 9. The cooling apparatus defined in claim 2 wherein
2 all of said blowers are disposed below said conveyor, said outer
3 blowers have blast pipes spaced transversely apart across said
4 conveyor and said inner blower has a blast pipe received between
5 the blast pipes of said outer blowers, all of said blast pipes
6 opening into a funnel-shaped diffuser widening upwardly toward
7 said rings on said conveyor.

1 10. The cooling apparatus defined in claim 9 wherein
2 said blowers are transversely offset by respective blower widths
3 from one another along said path.

1 11. The cooling apparatus defined in claim 9, further
2 comprising swingable baffle plates for said blast pipes.

1 12. The cooling apparatus defined in claim 9, further
2 comprising slidable baffle plates for said blast pipes.